

REMARKS

Claims 11-21 and 23 are all the claims pending in the application. Claims 1-10 and 22 have been canceled without prejudice or disclaimer. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Claim Rejections - 35 U.S.C. § 103

- The Examiner rejected claims 10 and 22 under §103(a) as being unpatentable over US Patent 5,795,421 to Takahashi et al. (hereinafter Takahashi) in view of US Patent 4,478,775 to Endo et al. This rejection is now believed to be moot.
- The Examiner rejected claims 11 and 23 under §103(a) as being unpatentable over Takahashi in view of Endo, and further in view of US Patent 5,807,588 to Todaka et al. (hereinafter Todaka). Applicants respectfully traverse this rejection for the following reasons.

First, there is no motivation to combine the references as suggested by the Examiner. Here, the Examiner attempts to combine Endo and Todaka with Takahashi. However, as noted below, Endo and Todaka operate at cross purposes to one another. Accordingly, one of ordinary skill in the art would not have been motivated to combine them as suggested by the Examiner. In this regard, similar arguments as set forth below with respect to the Examiner's rejection based again on these references and further in view of Lenhardt are pertinent here and, therefore, are incorporated by reference thereto.

Second, even assuming, for the sake of argument alone, that one of ordinary skill in the art were motivated to combine the references as suggested by the Examiner, any such combination would still not teach or suggest all the elements as set forth in claim 23. Applicants' argument as set forth below with respect to claim 14 is pertinent here and, therefore, is incorporated by reference thereto.

- The Examiner rejected claim 12-21 under §103(a) as being unpatentable over Takahashi in view of Endo and Todaka, and further in view of US Patent 5,462,199 to Lenhardt (hereinafter Lenhardt). Applicants respectfully traverse this rejection because there is no motivation to

combine the references as suggested by the Examiner, and that the references fail to teach or suggest all of the elements as set forth and arranged in the claims.

First, there is no motivation to combine the references as suggested by the Examiner, instead, the Examiner impermissibly picks and chooses elements from the prior art, by using the claims as a guide, to reconstruct the Applicants' invention. But it is not obvious to do so.¹ That is, the Examiner picks Takahashi's extrusion machine that applies a continuous resin frame to a windowpane, picks Todaka's control method that applies to an in-line screw type extruder, picks Endo's screw and plunger arrangement for injecting resin into a mold, and picks Lenhardt's buffer container control. However, Applicants do not claim to have invented a machine or method for applying a resinous bead to a sheet of glass. Similarly, Applicants do not claim to have invented a metering screw with a plunger. Instead, Applicants have claimed to discover the advantage of using the two elements in combination.

Specifically, it is Applicants who disclose the drawbacks of using a screw extruder in connection with a method for forming a resinous frame. And it is Applicants who disclose the solution to that problem. That is, Applicants disclose the problems of using a conventional screw extruder stem from the required change in moving speed of a glass sheet, when a resinous bead is applied at the corners. At the corners, the sheet moves more slowly with respect to the apparatus applying the resinous bead. Accordingly, the amount of resinous material to be applied in the corners must be reduced.² In the past, attempts were made to solve the problem by changing the rotational speed of the metering screw.³ However, the problem with such a strategy is that the rotational speed of the metering screw cannot be changed instantaneously and,

¹ *Ex Parte Clapp*, 227 USPQ 972 (Bd. Pat. App. & Interf. 1985). See also: *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ.2d 1780, 1784 (Fed. Cir. 1992)(citing *In re Gorman*, 933 F.2d 982, 987, 18 USPQ.2d 1885, 1888 (Fed. Cir. 1991) ("It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious.")).

² Specification at paragraph bridging pages 2 and 3, and page 4 line 4 - page 5, line 7.

³ Specification at page 5, lines 8-26.

therefore, the output from the extruder only gradually changes. And the change is not quick enough to keep the bead uniform at the corners.⁴ Todaka attempts to solve this problem by more accurate control of the screw's speed. In a different manner of solving this problem, Applicants have discovered that by using a plunger in connection with the metering screw, a uniform resinous bead can be applied to a sheet of glass even at corners.⁵

But most if not all inventions arise from a combination of old elements.⁶ Thus, every element of a claimed invention—such as a metering screw, and a plunger, as in the present case—may often be found in the prior art.⁷ However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant.⁸

“Although the suggestion to combine references may flow from the nature of the problem, ‘defining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness.’”⁹ Therefore, “when determining the patentability of a claimed invention which combines two known elements, the question is

⁴ Specification at page 5, line 27 - page 6, line 18.

⁵ Specification at page 12, line 6 - page 15, line 18.

⁶ *In re Kotzab*, 55 USPQ2d at 1316 (citing *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998).

⁷ *Id.*

⁸ *In re Kotzab*, 55 USPQ2d at 1316 (citing *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); and *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)).

⁹ *Ecolochem, Inc. v. Southern California Edison Co.*, 56 USPQ2d 1065 (Fed. Cir. 2000) (citing *Monarch Knitting Mach. Corp. v. Sulzer Morat Gmbh*, 139 F.3d 877, 880, 45 USPQ2d 1977, 1981 (Fed. Cir. 1998).

whether there is something in the prior art as a whole to suggest the desirability, and thus obviousness, of making the combination.”¹⁰

Here, there is not. Instead, Takashi discloses a method for preparing a panel with a resinous frame, Lenhardt teaches a buffer for controlling a metering rate of a pasty compressible substances of high viscosity so that the metering rate can exactly be controlled close to the nozzle (and also happens to include a plunger) but has nothing to do with screw compressors. Further, Todaka and Endo operate at cross purposes to one another in that Todaka desires to vary the extruding pressure so as to follow up workpiece travel speed, whereas Endo desires to eliminate any such variations, instead desiring to “continuously send a constant amount of molten thermoplastic material to a die” and to “[adjust] rotational frequency of the measuring pump to diminish deviation of the detected pressure value from a predetermined pressure value.”¹¹ Further, Endo eliminates variation in the extruding pressure by providing the plunger pump 5, the very device that the Examiner suggests using to create variations in the pressure. Accordingly, the Examiner fails to consider the teachings of the references as a whole and, instead, impermissibly selectively picks and chooses elements from each. This she cannot do.

Second, with respect to claim 14, Applicants respectfully traverse this rejection because the references fail to teach or suggest all the elements as set forth in therein.

Claim 14 sets forth a method for preparing a panel with a resinous frame, comprising: controlling an injection amount of the resinous material in response to a relative moving speed between a peripheral edge of the panel and the die, and injecting with a plunger, during the controlling, fed resinous material toward the die so as to be extruded directly onto the peripheral edge of the panel through the nozzle of the die.

¹⁰ *Id.* at 1073 (citing *In re Beattie*, 974 F.2d 1309, 1311-12, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992).

¹¹ Endo at col. 2, lines 31-35, and col. 1, lines 59-62, for example.

For example, as shown in Fig. 4, one embodiment consistent with that set forth in claim 14 is that the resinous material 5 is fed toward the die 6 so as to be extruded directly onto the peripheral edge of the panel 1 through the nozzle 7 of the die 6.

In contrast to that set forth in claim 14, Takahashi teaches extruding a shaped product 16 from a shaping die 14, conveying the product 16 to a pressing member 20, and then applying the product 16 to a panel 22 with the pressing member 20. Further, Takahashi teaches that it is not desirable to extrude the resinous material directly onto the glass sheet, because vibration due to driving the die is transmitted to the shaped product on shaping to be reflected on a surface of the frame to be shaped, giving poor appearance to the frame. See, for example, col. 1, lines 44-56, and col. 8, line 63 - col. 9, line 6. Accordingly, Takahashi fails to teach or suggest, and one of ordinary skill in the art would not have been motivated to modify Takahashi to include, injecting resinous material toward a die so as to be extruded directly onto the peripheral edge of the panel through the nozzle of the die, as set forth in claim 14. Accordingly, the references fail to render obvious claim 14. Likewise, these references fail to render obvious dependent claims 15-17.

For at least any of the above reasons, Takahashi, Endo, Todaka, and Lenhardt, fail to render obvious claims 12-21.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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